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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/328,183	06/08/1999	OVERTON L. PARISH IV	27889-00037	6471

23932 7590 06/03/2003  
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EXAMINER

ATKINSON, CHRISTOPHER MARK

ART UNIT PAPER NUMBER

3743

DATE MAILED: 06/03/2003

32

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/328,183

Applicant(s)

Parish et al.

Examiner

Atkinson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 12/11/03
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-38 is/are pending in the application.
- 4a) Of the above, claim(s) 5, 7, 12-20 & 38 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6, 8-11 & 21-37 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some\* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\*See the attached detailed Office action for a list of the certified copies not received.

- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

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*Response to Amendment*

Applicant's arguments filed 12/11/2002 have been fully considered but they are not persuasive.

Claims 5, 7, 12-20 and 38 remain withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in Paper No. 11. Claims 5, 7 and 12-13 do not read on the elected species but rather on non-elected species B.

*Specification*

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

The following is a quotation of 37 CFR 1.71(a)-(c):

(a) The specification must include a written description of the invention or discovery and of the manner and process of making and using the same, and is required to be in such full, clear, concise, and exact terms as to enable any person skilled in the art or science to which the invention or discovery appertains, or with which it is most nearly connected, to make and use the same.

(b) The specification must set forth the precise invention for which a patent is solicited, in such manner as to distinguish it from other inventions and from what is old. It must describe completely a specific embodiment of the process, machine, manufacture, composition of matter or improvement invented, and must explain the mode of operation or principle whenever applicable. The best mode contemplated by the inventor of carrying out his invention must be set forth.

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© In the case of an improvement, the specification must particularly point out the part or parts of the process, machine, manufacture, or composition of matter to which the improvement relates, and the description should be confined to the specific improvement and to such parts as necessarily cooperate with it or as may be necessary to a complete understanding or description of it.

The specification is objected to under 37 CFR 1.71 because the originally filed specification fails to disclose the elected embodiment of Figure 1 having the claimed first and second seals.

The amendment filed 12/11/2002 is objected to under 35 U.S.C. 132 because it introduces new matter into the disclosure. 35 U.S.C. 132 states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: “extension 20 is sealed by a first seal ... end cap 28b”. Applicant is required to cancel the new matter in the reply to this Office Action.

***Claim Rejections - 35 USC § 112***

Claims 1-4, 6, 21-22, 25-26, 29-32, 34 and 36-37 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Regarding claims 1 and 21, the originally filed specification fails to disclose the elected embodiment of Figure 1 having the claimed first and second seals.

Claims 1-4, 6, 8-11 and 21-37 are rejected under 35 U.S.C. 112, second paragraph, as

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being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In view of the plurality of claim indefinite problems within the claims, the Examiner has only listed a few of the problems and it is requested applicant correct all claim errors. Regarding claim 1, the recitation "the at least one heat generating component" is indefinite and creates an inconsistency in the claim since the preamble indicates a subcombination since there is no positive recitation of "the at least one heat generating component" while the body of the claim indicates a combination since "the at least one heat generating component" has been positively recited. Therefore, the Examiner cannot be sure if applicant's intent is to claim the subcombination or the combination.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. § 103 which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Subject matter developed by another person, which qualifies as prior art only under subsection (f) or (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. § 103, the examiner presumes that the subject matter of the various claims was

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commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 C.F.R. § 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of potential 35 U.S.C. § 102(f) or (g) prior art under 35 U.S.C. § 103.

Claims 1-3, 6, 8-11 and 21-37 are rejected under 35 U.S.C. § 103 as being unpatentable over Wrigth et al. in view of al Fox et al.

The patent of Wrigth et al. discloses all the claimed features of the invention with the exception of fins, a circuit board, a means for circulating the heat transfer fluid and a means for removing heat from the heat transfer fluid. The height of the device and the claimed channel cross-section are considered to be an obvious design choices dependent upon spacial and flow requirements which do not solve any stated problem or produce any new and/or unexpected result.

The patent of Fox et al. in Figures 1-6 discloses that it is well known in the heat transfer art to have fins on a heat exchanger, a circuit board, a means for circulating the heat transfer fluid and a means for removing heat from the heat transfer fluid for the purpose of cooling a heat generating device with a closed loop heat transfer system. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in as disclosed in Wrigth et al. fins, a circuit board, a means for circulating the heat transfer fluid and a means for removing heat from the heat transfer fluid for the purpose of cooling a heat generating device with a closed loop heat transfer system. Fox et al.

Claim 4 is rejected under 35 U.S.C. § 103 as being unpatentable over Wrigth et al. in view

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of Fox et al. as applied to claims 1-3, 6, 8-11 and 21 above, and further in view of applicant's omission of known/convention prior art.

The patent of Wrigth et al. as modified, discloses all the claimed features of the invention with the exception of a plated metal.

Applicant's omission of known/convention prior art in his specification on page 7 discloses that it is known to have a second material between the heat exchanger and the component for the purpose of reducing thermal resistances and attaching the component to the heat exchanger. The material being metal is considered to be an obvious design expedient. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Wrigth et al. as modified, a second material between the heat exchanger and the component for the purpose of reducing thermal resistances and attaching the component to the heat exchanger as known by applicant's omission of known/convention prior art.

### *Response to Arguments*

Applicant's concerns directed toward the elected species having first and second seals are not found persuasive. The originally filed specification fails to disclose the elected embodiment of Figure 1 having the claimed first and second seals nor does the originally filed disclosure state the horizontal lines in Figure 1 are seals.

In response to applicant's argument's that his invention does not include the prior arts additional structure, it must be noted that the prior art above rejections meet the invention as claimed. The fact that it discloses additional structure not claimed is irrelevant.

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Regarding applicant's concerns directed toward the function of an element, claims directed to apparatus must be distinguished from the prior art in terms of structure rather than function. *In re Danly*, 263 F.2d 844, 847, 120 USPQ 528, 531 (CCPA 1959). "[A]pparatus claims cover what a device is, not what a device does." *Hewlett-Packard Co. v. Bausch & Lomb Inc.*, 909 F.2d 1464, 1469, 15 USPQ2d 1525, 1528 (Fed. Cir. 1990). Expressions relating the apparatus to contents thereof during an intended operation are of no significance in determining patentability of the apparatus claim." *Ex parte Thibault*, 164 USPQ 666, 667 (Bd. App. 1969). Furthermore, "[i]nclusion of material or article worked upon by a structure being claimed does not impart patentability to the claims." *In re Young*, 75 F.2d 966, 25 USPQ 69 (CCPA 1935) (as restated in *In re Otto*, 312 F.2d 937, 136 USPQ 458, 459 (CCPA 1963)). In order to be given patentable weight, a functional recitation must be expressed as a "means" for performing the specified function, as set forth in 35 USC § 112, 6th paragraph, and must be supported by recitation in the claim of sufficient structure to warrant the presence of the functional language. *In re Fuller*, 1929 C.D. 172; 388 O.G. 279. Similarly, "Even though product-by process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." *In re Thorpe*, 227 USPQ 964, 966 (Fed. Cir. 1985).

Applicant's concerns directed toward perpendicular inlets are not found persuasive. The



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claimed "axis" is read as the axis coming out of the page in Figure 1 of Wright et al.

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Wright et al., not Fox et al., is relied on for teaching a unitary member (21) and for teaching a fluid communication between adjacent and non-adjacent micro tubes (11).

### ***Conclusion***

Applicant is reminded that he has elected species A as illustrated in Figure 1. A shift in species is not permissible in an RCE.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

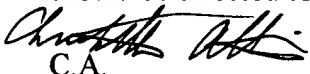
**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however,

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will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher Atkinson whose telephone number is (703) 308-2603.



C.A.

CHRISTOPHER ATKINSON  
PRIMARY EXAMINER

June 2, 2003